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Soviet Radar Allegedly Stolen From U.S.

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When the Carter administration decided against B1 bomber production in 1977, officials said the proposed aircraft would have difficulty surviving a bombing mission because of Soviet strides in developing a new airborne radar system.

As U.S. officials were making that rationale public, Soviet technicians were secretly poring over U.S. documents, adapting American technology for their feared "look-down/shootdown" radar.

The fire-control radar of U.S. F18 jet fighters, whose design was contained in documents stolen by Moscow, served as the "technical basis" for the new Soviet radar's

ability to look down and spot invading, low-level bombers before they reach their target, according to an intelligence report released by the Pentagon last week.

Purloined documents pertaining to the F18, one of the most advanced U.S. combat jets, saved Soviet radar and aviation industries five years and 35 million rubles in developing countermeasures to the F18 and other U.S. aircraft, the report said.

The report cited the F18 case to dramatize dangers of a Soviet campaign to subsidize its defense industry, legally and illegally, with the cream of Western technology.

Based on unusually detailed accounts and rare Kremlin documents

supplied to the French intelligence service by a KGB agent, the report contends that Soviet acquisition of tens of thousands of Western blueprints and weapons in recent years has benefited almost every Soviet military research project.

Moscow has used everything from sophisticated Western computers to cruise-missile documents to raise the technical levels of thousands of weapons and industrial processes, accelerate military research projects by years and initiate hundreds of new programs annually, the report said.

With sensitive microelectronics fabrication equipment smuggled from Japan, Europe and the United States, the Soviets have shortened

the Western lead in that area from 10 years to four years, according to the report.

Most of the integrated circuits in Soviet strategic and tactical military systems are copies of Western microchips, the report said. A microprocessor adapted by Soviet technicians from an American component reportedly carries the equivalent U.S. part number to avoid confusion with other stolen items.

"Significant advances" in the Soviet microelectronics industry were achieved with help from Western businessmen who, in exchange for lucrative fees, falsified export licenses and established dummy firms to smuggle thousands of pieces of sophisticated components,

including epitaxial reactors and diffusion furnaces, the report said.

Western documents, it said, helped the Soviets cut their research time by two years on a new generation of fuses for munitions with a large kill radius and self-aiming aviation cluster munitions.

The report describes a well-organized Soviet effort responsible for "massive diffusion" of Western technology. At the top is the Military Industrial Commission, known by the Russian acronym VPK. It consists of top defense industry executives who earmark funds for "collection" of specific items.

Soviet and East European intelligence agents netted about half of the 30,000 pieces of military hardware and one-fifth of the 400,000 technical documents targeted by the VPK between 1976 and 1980, improving "large numbers" of Soviet weapons, the report said.

It said the VPK, which targets items in their order of priority, focused in recent years on the IBM 370 computer, used as a model for the Soviet "Ryad" computer, on a cruise missile computer sought for its large-capacity digital memories, and on a U.S. Fairchild Instrument Corp./Xincom semiconductor memory tester.

The VPK's program is a "Soviet success story," said the report, which cited such significant leaks of Western technology as documents on ballistic-missile defense concepts, the U.S. Phoenix missile, U.S. Copperhead laser-guided artillery and millimeter radar.

Military hardware netted by the Soviets include infrared radiometers, fiber-optics systems, analyzers for submarine quieting and aircraft engine vibration control systems, according to the report.